

The Effects of Stormwater Pollution

A little spilled oil or gas can go a long way in a thunderstorm - the pollutants can harm fish and wildlife, kill native vegetation, foul drinking water supplies, and make recreational areas unsafe and unpleasant.



- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- Excess nutrients can cause algae blooms. When algae die, they sink to

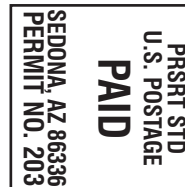
the bottom and decompose in a process that removes the oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.

- Litter, trash and garbage, when not properly disposed of can end up clogging our stormwater drainage system (above left).
- Bacteria and other pathogens can wash into swimming areas and create health hazards, often making swimming area closures necessary. Bacteria may be the result of trash or of your pet's (including livestock droppings when not disposed of properly).
- Vehicle fluids such as oil, gas, and antifreeze – the #1 surface water quality problem nation wide - can seep into the ground and take years before it reaches the river... but it does or it may find a direct path to the storm drain as shown in the picture above, right.
- Household hazardous wastes like insecticides, pesticides, paint and solvents can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.
- Polluted stormwater can also affect drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.



POSTAL PATRON

City of Sedona
Sedona, AZ 86336



As a
Resident

*You
play an
important
part!*

Pollution of stormwater runoff is often caused by the daily activities of residents and tourists.

What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground rather than soaking into it. Impervious surfaces like roofs, driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

How does stormwater become polluted?

As the volume of stormwater increases it can pick up debris, chemicals, dirt, and other pollutants. This flow is discharged **untreated** into water bodies such as Oak Creek. Pollution is a concern because we use these water bodies for swimming, fishing, and providing drinking water.



Your Actions Impact

The City of Sedona is a beautiful place with the designated *Unique Waterway* of Oak Creek flowing through it. You can help us keep it as beautiful as it is by following some simple guidelines to minimize your impact in the most visited wilderness area in Arizona. Please, *don't destroy the environment we all call home.*

Living Water

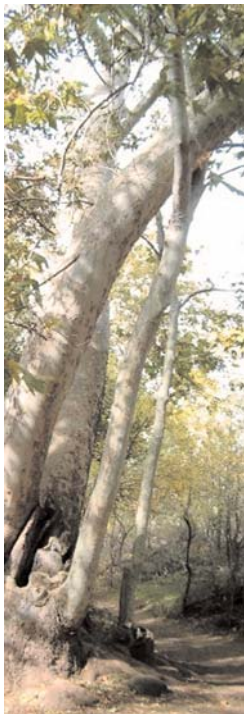
The geology, plants, and precipitation all shape the condition of the Oak Creek watershed. Likewise, humans also affect the watershed, with the things we do and don't do.

Urbanization increases the variety and amount of pollutants carried into the Oak Creek watershed. These pollutants include:

- Sediment
- Oil, grease, and toxic chemicals from motor vehicles
- Pesticides and nutrients from lawn and gardens
- Viruses, bacteria, and nutrients from pet waste and failing septic systems

Make your home part of the Solution to Stormwater Pollution!

- Never dispose into any drainage channel or ditch any cuttings, trimmings, trash, or other items. They will impede, disrupt, be carried away by, or block the flow of drainage.
- Grass, leaves and other organic materials should be removed by a broom and composted or put in the trash. Sweeping instead of hosing off pavements can prevent pollutants from going directly from storm drains into the local watershed.



- Don't overfill trash receptacles and create street litter that may end up in a drain - keep trash bins tightly covered.
- Avoid overuse of pesticides - learn about Integrated Pest Management (IPM).
- Cover bare spots in your yard with vegetation, rock, or consider a water garden.
- Direct downspouts away from paved surfaces. Clean roof gutter annually.
- Check your car for leaks and dispose of your vehicular fluids at a local car maintenance shop.
- Do not install any covering, fencing or other obstruction over any culvert pipe inlet or outlet.
- Do not landscape within drainage channels, drainage swales, side ditches adjacent to the shoulder of right-of-ways, and the like without obtaining approval from the City Public Works/Engineering Department.
- Unclog drainages that become blocked by floating debris, leaves, tree limbs, sand, silt, and the like.

- Cover debris and dirt piles. Cover truck loads of dirt, yard waste and other debris.
- Prevent polluted runoff by picking up after pets, and using, storing, and disposing of chemicals properly.
- Households served by septic systems should have them professionally inspected and pumped every 3 to 5 years.
- Use a commercial car wash or wash your car on the lawn or other unpaved, porous surface.

